

REMARKS

Claims 1, 4-7, 8-9, 11, 14-16, 18-19 have been amended. Claims 2-3, 12-13, 17, have been canceled. No new claims have been added. Claims 1, 4-7, 8-11, 14-16, 18-21 are pending.

Allowable subject matter has been identified in claims 8 and 18. Claim 8 and 18 stand objected to as being dependent upon a rejected base claim. Claims 9-10 and 19-20 stand objected as being respectively dependent upon claims 8 and 18. Claims 8 and 18 have been rewritten as independent claims, incorporating the limitations of their former base claims. Accordingly, claim 8 (and depending claims 9-10) and claim 18 (and depending claims 19-20) are believed to be allowable.

Claims 1-7, 11-17, and 21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Iourcha (U.S. Patent No. 6,304,268).

Claim 1 recites, *inter alia*, "obtaining, for a pixel, ... a set of level of detail (LOD) values comprising a first LOD value in said first dimension and a second LOD value in said second dimension; determining, for said pixel, a filtering domain comprising a first number of texels along said first dimension and a second number of texels along said second dimension in a texture ... calculating a texture color as a weighted average of color values from texels in said filtering domain; wherein said first and second numbers are respectively related to said first and second LOD values."

Claim 11 recites, *inter alia*, "a circuit for receiving, for a pixel, ... a set of level of detail (LOD) values comprising a first LOD value in said first dimension and a second LOD value in said second dimension; a circuit for determining, for said pixel, a filtering domain comprising a first number of texels along said first dimension and a second number of texels along said second dimension, in a texture ... a circuit for

calculating a texture color as a weighted average of color values from texels in said filtering domain; ... wherein said first and second numbers are respectively related to said first and second LOD values."

Iourcha discloses a graphical system for performing tri-linear filtering. Referring to Fig. 12, Iourcha discloses a texture mapping engine 806 which is coupled to a texture cache 804. The texture mapping engine 806 reads a texture from the texture cache 804. The texture is supplied in parallel to a Level n generator 1202 and a Level $n+1$ sample producer 1206. The Level n generator 1202 creates a first filtering domain from the texels read from the texture cache and produces a first color value from the first filtering domain. The first color value is supplied to an interpolator 1204. The Level $n+1$ sample producer 1206 operates upon the same texels read from the texture cache 804 to create texels for a Level $n+1$ generator 1208. The Level $n+1$ generator 1208 operates similarly to the Level n generator 1202, but operates on the texels generated by the Level $n+1$ sample producer 1206 to create a second color value. The second color value is also supplied to the Interpolator 1204, which interpolates a final color value from the first and second color values.

Significantly, Iourcha discloses the use of a conventional level of detail (LOD) parameter. Iourcha calculates two color values from two adjacent LODs. More specifically, if the LOD parameter is n , Iourcha discloses interpolating a final color value based on colors calculated from processing on data associated with LODs n and $n+1$. In contrast, the claimed invention requires the use of a multi-dimensional LOD comprising a first LOD in a first dimension and a second LOD in a second dimension. The first and second LODs are used to determine a filtering domain which has a size which varies in the first and second dimension with the first and second LODs. These features are not taught or suggested by the prior art of record.

Accordingly, claims 1 and 11 are believed to be allowable over the prior art of record. The depending claims, i.e., claims 4-7, and 14-16 are also believed to be allowable for at least the same reason as the independent claims.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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